

REMARKS**Status of the Claims**

Claims 1 and 4 are currently present in the Application, and claim 1 is an independent claim. Claims 1 and 4 have been amended, claims 3, 5, 6-8, 10-14, and 16-20 have been canceled, and no claims have been added.

Applicants are not conceding in this Application that those canceled claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the present Application. Applicants respectfully reserve the right to pursue these and other claims in one or more continuations and/or divisional patent applications.

Drawings

Applicants note that the Examiner has still not indicated whether the formal drawings, filed with Applicants' application, are accepted by the Examiner. Applicants respectfully request that the Examiner indicate whether the formal drawings are accepted in the next office communication.

Information Disclosure Statement

Applicants note that the Examiner did not initial the following references:

- IDS submitted 03/29/2007: "AN" reference;
- IDS submitted 5/20/2007: "AP" reference;
- IDS submitted 12/27/2007: "AV" reference;

Applicants request the Examiner consider these references and send a copy of initialed form PTO-1449 for each IDS to Applicants.

Claim Rejections – Alleged Obviousness Under 35 U.S.C. § 103

Claims 1, 3, 5-7, 14, 16, and 19-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ansari et al. (U.S. Patent No. 6,473,897, hereinafter "Ansari") in view of Civlin et al. (U.S. Patent No. 2005/0028148, hereinafter "Civlin"). Applicants

respectfully traverse these rejections. Claims 3, 5-7, 14, 16, and 19-20 have been canceled in this response and, therefore rejections to these claims are moot.

Applicants have amended independent claim 1 to incorporate limitations similar to those previously found in original claim 5 that describes identifying a processor type in which to execute code during runtime. Support for such amendment may be found in Applicants' Figure 50, reference numerals 5065 through 5080, and in Applicants' specification on page 62, lines 5-23. Therefore, no new matter is added with such amendment. As amended, claim 1 is directed toward a method with limitations comprising:

- compiling a first source code subtask and a second source code subtask, the compiling resulting in a first byte code subtask and a second byte code subtask;
- translating the first byte code subtask to a first object code subtask;
- executing the first object code subtask using one of a plurality of heterogeneous processor types;
- during the execution of the first object code subtask, the method further comprises:
 - retrieving the second byte code subtask using a runtime loader;
 - in response to retrieving the second byte code subtask, using the runtime loader to identify a processor type from the plurality of heterogeneous processor types in which to execute the second byte code subtask, wherein the identifying includes retrieving a loading factor for each of the plurality of heterogeneous processor types and determining an availability of each of the plurality of heterogeneous processor types using the loading factors;
 - in response to identifying the processor type, using the runtime loader to translate the second byte code subtask to a second object code subtask; and
 - loading the second object code subtask into a processor that corresponds to the identified processor type.

Applicants use a compiler to generate byte code from source code and, at runtime, use a runtime loader to translate the byte code to processor-specific object code. In order to determine which processor type in which to translate the object code,

the runtime loader analyzes processor loading factors to identify processors that are least utilized from executing other object code subtasks.

In contrast, Ansari uses a compiler to generate processor-specific object code from source code during **source code compilation**. Ansari states:

“...the compiler automatically and dynamically **analyzes the source code and customizes the object code** for particular processor types” (col. 11, lines 39-41)

“A computer-implemented method **analyzes a source code segment which is to be compiled for execution** by any one of several different processor types.” (Abstract)

As can be seen from the above excerpts, Ansari’s processor-type identification occurs during source code compilation. During runtime, Ansari merely executes the object code. As a result, Ansari never teaches or suggests **“during the execution of the first object code subtask, the method further comprises: retrieving the second byte code subtask using a runtime loader; in response to retrieving the second byte code subtask, using the runtime loader to identify a processor type from the plurality of heterogeneous processor types in which to execute the second byte code subtask, wherein the identifying includes retrieving a loading factor for each of the plurality of heterogeneous processor types and determining an availability of each of the plurality of heterogeneous processor types using the loading factors; in response to identifying the processor type, using the runtime loader to translate the second byte code subtask to a second object code subtask; and loading the second object code subtask into a processor that corresponds to the identified processor type”** as claimed by Applicants. The Office Action does not suggest that Civlin teaches or suggests such limitations and, indeed, Civlin does not teach such limitations.

Therefore, since neither Ansari nor Civlin teach or suggest, either alone or in combination with each other, all the limitations included in Applicants’ claim 1 as amended, amended claim 1 is allowable over Ansari in view of Civlin.

Claims 4 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ansari in view of Civlin and further in view of Kempf, et al. (U.S. Patent No.

5,359,721, hereinafter "Kempf"). Applicants respectfully traverse these rejections. Claim 17 has been canceled in this response and, therefore, rejection to this claim is moot.

Claim 4 depends upon allowable independent claim 1. Therefore, claim 4 is allowable over Ansari in view of Civlin in view of Kempf for at least the same reasons that independent claim 1 is allowable over Ansari in view of Civlin as discussed above.

Claims 8, 10, 12-13, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ansari in view of Civlin and further in view of Jacobson (U.S. Patent Pub. 2003/0188045, hereinafter "Jacobson"). Applicants respectfully traverse these rejections. Claims 8, 10, 12-13, and 18 have been canceled in this response and, therefore, rejections to these claims are moot.

Conclusion

As a result of the foregoing, it is asserted by Applicants that the remaining claims in the Application are in condition for allowance, and Applicants respectfully request an early allowance of such claims.

Applicants respectfully request that the Examiner contact the Applicants' attorney listed below if the Examiner believes that such a discussion would be helpful in resolving any remaining questions or issues related to this Application.

Respectfully submitted,

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